

REMARKS

This Amendment is being filed in response to the Final Office Action mailed March 18, 2008, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

In the Final Office Action, claims 1-7 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,160,826 (Swanson) in view of an article entitled "Optical Coherence Tomographic Imaging of Human Tissue at 1.55 $\mu$ m and 1.81 $\mu$ m using Er-and Tm Dopped Fiber Sources" (Bouma) and an article entitled "196-fs Passively Mode-Locked Thulium Fiber Laser with a Low Threshold" (Sharp). It is respectfully submitted that claims 1-7 are patentable over Swanson, Bouma and Sharp for at least the following reasons.

Swanson is directed to a method and apparatus for performing optical frequency domain reflectometry. As shown in FIG 1, the Swanson system 10 has a coupler 30 having one output connected to a photodetector 50 and a second output connected to another coupler

90/10 which is connected to an auxiliary interferometer 96 for correcting any non-linearity in the frequency sweep and ensuring proper demodulation of the reflectance profile of a sample 38.

As clearly shown in FIG 1 of Swanson, the photodetector 50 has a single input port which is connected to the coupler 30. The other coupler 90/10 is NOT connected to any further input port of the very same photodetector 50 which is coupled to the first coupler 30. Rather, this other coupler 90/10 is connected to the auxiliary interferometer 96.

Assuming, arguendo, that the Swanson photodetector 50 has two ports, it is respectfully submitted that, at best, any signal received on such a second port (from the auxiliary interferometer 96) is merely for correcting any non-linearity in the frequency sweep and ensuring proper demodulation of the reflectance profile of a sample 38. As recited on column 6, lines 32-46, the "auxiliary interferometer 96, corrects for any non-linearity in frequency sweep by sampling the detected signal at equally spaced source frequency increments."

It is respectfully submitted that Swanson does not teach or suggest the present invention as recited in independent claim 1

which, amongst other patentable elements, recites (illustrative emphasis provided):

a further beam splitter which receives part of a radiation from the beam splitter-combination arrangement and couples out a reference signal to a second port of the photodetector, wherein the photodetector scales and subtracts the combined signal and the reference signal to form an output photodetector signal having a reduced noise for output from the photodetector.

Swanson is completely silent and does not teach or suggest a photodetector that "scales and subtracts the combined signal and the reference signal to form an output photodetector signal having a reduced noise for output from the photodetector," as recited in independent claim 1.

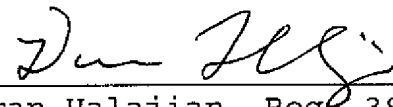
Accordingly, it is respectfully submitted that independent claim 1 is allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-7 should also be allowed at least based on their dependence from amended independent claim 1.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the

presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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